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Synthesis, transport, and ionophoric properties of α,ω-biphosphorylated azapodands: VI. New cesium-selective electrodes based on the phosphorylated azapodands

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Abstract

New cesium-selective electrodes containing as an electrode active substance biphosphorylated azapodands: 1,8-bis(dioctylphosphorylmethylamino)-3,6- dioxaoctane (I), 1,10-bis(dioctylphosphorylmethylamino)-4,7-dioxadecane (II), and 1-(dioctylphosphorylmethylamino--10-[(dioctylphosphorylmethyl)benzylamino]- 4,7-dioxadecane (III) were developed, and the composition of the membranes of these electrodes was optimized. The high selectivity of electrodes based on the ionophores I-III toward Cs(I) ion, which can be determined on the background of the majority of the other ions of alkali and alkaline earth metals, including the close to it by size Rb(I) ion, was established.

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